

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

UNITED THERAPEUTICS)
CORPORATION,)
Plaintiff)
v.) C.A. No. 23-975 (RGA) (SRF)
LIQUIDIA TECHNOLOGIES, INC.,)
Defendant.)

JOINT CLAIM CONSTRUCTION CHART

Pursuant to Paragraph 6 of the Court's Scheduling Order (D.I. 45), entered on March 14, 2024, Plaintiff United Therapeutics Corporation ("UTC") and Defendant Liquidia Technologies, Inc. ("Liquidia") have met and conferred and hereby jointly submit the attached Joint Claim Construction Chart (Ex. A) for U.S. Patent No. 11,826,327 ("the '327 patent") (Ex. B). Exhibit A includes the disputed terms that either party contends is in need of construction, the parties' respective positions on construing each disputed term, and citations to intrinsic evidence for each disputed term. The Chart also includes "an explanation of why resolution of the dispute makes a difference." D.I. 45, ¶6.

Each party reserves the right to supplement the attached Joint Claim Construction Chart (Exhibit A) with additional evidence and to rely upon additional intrinsic evidence and/or extrinsic evidence in their claim construction briefs to rebut evidence or arguments made by the other party, and to rely upon the other party's identified intrinsic evidence. Copies of UTC's cited intrinsic evidence are provided as Exhibit C, and copies of Liquidia's cited intrinsic evidence are provided as Exhibit D.

The citation of evidence in this submission does not constitute an admission by either party that the opposing party's cited evidence constitutes intrinsic evidence.

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Dated: May 23, 2024

Exhibit A

Exhibit A
Joint Claim Construction Chart – '327 Patent

Term	Claims	Plaintiff's Proposed Construction & Explanation ¹	Plaintiff's Intrinsic Evidence (Ex. C)	Defendant's Proposed Construction & Explanation	Defendant's Intrinsic Evidence (Ex. D)
Preamble ("A method of improving exercise capacity in a patient having pulmonary hypertension associated with interstitial lung disease, comprising")	1	<p>Is limiting</p> <p>(Agreed construction)</p> <p>Resolution of the construction of this term matters because the prior art does not disclose or teach these limitations.</p>	<p>'327 patent, Abstract, 1:38-54, 1:54-2:52, 2:53-3:38, 4:5-12, 4:42-5:32, 5:49-57, 6:39-47, 6:63-7:14, 7:40-45, 12:49-13:32, 14:37-39, 17:54-18:14, 18:15-45, 19:33-60, 19:61-20:43, 22:19-36, 22:37-38, 22:50-24:7, 25:24-43, 25:45-63, 26:38-47, 26:54-61, 27:7-28:6, 28:9-40, 29:33-32:46, 34:36-42, 35:37-45, 36:45-49, 54:5-55:10 (the claims), Tables 1, 2, 3, 4, 5, 7, 10, Figs. 3-6, 8</p> <p>'327 Patent Prosecution History, April 16, 2021 Filed Claims (UTC_PH-ILD_011016 at UTC_PH-ILD_011016-129), February 16, 2022</p>	<p>Is limiting</p> <p>(Agreed construction)</p> <p>Resolution of the construction of this term will not bear on the ultimate outcome of the case because the prior art explicitly discloses improving the exercise capacity of a patient having pulmonary hypertension associated with interstitial lung disease comprising administering treprostinil by inhalation.</p>	

¹ See D.I. 45 at 5 ("The Joint Claim Construction Chart should include an explanation of why resolution of the dispute makes a difference.").

Term	Claims	Plaintiff's Proposed Construction & Explanation ¹	Plaintiff's Intrinsic Evidence (Ex. C)	Defendant's Proposed Construction & Explanation	Defendant's Intrinsic Evidence (Ex. D)
			Preliminary Amendment (UTC_PH-ILD_011016 at UTC_PH-ILD_012331-37), March 6, 2023 Office Action (UTC_PH-ILD_011016 at UTC_PH-ILD_013079-84), May 10, 2023 Applicant Response (UTC_PH-ILD_011016 at UTC_PH-ILD_013112-20), June 28, 2023 Notice of Allowance and Notice of Allowability (UTC_PH-ILD_011016 at UTC_PH-ILD_013123-28)		
“a” / “the” in the following terms: “a patient” “the patient” “a maximum tolerated dose”	Multiple 1 1-5, 9, 10, 15-19 1	No construction necessary. To the extent the term is construed, “a” / “the” should be construed to have its plain and ordinary meaning in view of the specification, which is “one or more unless	’327 patent, 6:15-17, 54:5-55:10 (the claims), and usage of the terms in the intrinsic evidence (<i>passim</i>)	“one and more than one” The construction of “a” and “the” with the associated terms relates to invalidity positions Liquidia intends to take and in particular §112 written description,	6:15-17 The ’327 patent claims

Term	Claims	Plaintiff's Proposed Construction & Explanation ¹	Plaintiff's Intrinsic Evidence (Ex. C)	Defendant's Proposed Construction & Explanation	Defendant's Intrinsic Evidence (Ex. D)
“a single administration event” “the administering” “the single inhalation administration event”	1, 15 2-5, 8-10, 17-19 16	context clearly dictates otherwise” Given Liquidia’s lack of disclosures to date, UTC is unable to state a position regarding why resolution of any dispute regarding the construction of this term matters.		enablement, and indefiniteness	
“maximum tolerated dose”	1	Not indefinite, no construction necessary. To the extent the term is construed, it should be construed to have its plain and ordinary meaning in view of the specification, which is “the highest dose that does not cause unacceptable adverse events” UTC understands that Liquidia may assert that this term is indefinite. UTC disagrees. Aside from that dispute, and	’327 patent, 6:1-4, 6:39-7:14, 22:18-38, 22:39-45, 25:50-55, 27:1-3, 29:40-55, 30:66-31:7, 32:11-20, 35:15-35, 35:48-55, 47:33-40, 51:35-40, 54:5-55:10 (the claims), Tables 5, 6, 9, 15, 12, 18, 19, and 20 ’327 Patent Prosecution History, May 10, 2023 Listing of Claims (UTC_PH-ILD_011016 at UTC_PH-ILD_013113-15), May 10, 2023 Remarks (UTC_PH-ILD_011016	Indefinite. If not indefinite, “the highest dose before a patient discontinues administration” The construction of “a maximum tolerated dose” is relevant to invalidity, particularly indefiniteness under § 112.	Figure 2 Figure 12 4:30-41 6:1-4 6:60-62 32:20-27 Table 12 The ’327 patent claims The File History of the ’327 patent at: March 6, 2023 Non-final Rejection; May 10, 2023 Amendment and Applicant Remarks

Term	Claims	Plaintiff's Proposed Construction & Explanation ¹	Plaintiff's Intrinsic Evidence (Ex. C)	Defendant's Proposed Construction & Explanation	Defendant's Intrinsic Evidence (Ex. D)
		given Liquidia's lack of disclosures to date, UTC is unable to state a position regarding why resolution of any dispute regarding the construction of this term matters.	<p>at UTC_PH-ILD_013116-20), June 28, 2023 Notice of Allowance and Notice of Allowability (UTC_PH-ILD_011016 at UTC_PH-ILD_013123-28)</p> <p>U.S. Patent No. 8,765,813 (incorporated into '327 patent by reference at 8:17-37, 54:1-3)</p> <p>U.S. Patent Application Publication No. 2015/0148414 (incorporated into '327 patent by reference at 8:17-37, 54:1-3)</p> <p>U.S. Patent Application Publication No. 2015/0328232 (incorporated into '327 patent by reference at 8:17-37, 54:1-3)</p>		References Disclosed in the File History of the '327 patent: WO 2008/098196A1

Term	Claims	Plaintiff's Proposed Construction & Explanation ¹	Plaintiff's Intrinsic Evidence (Ex. C)	Defendant's Proposed Construction & Explanation	Defendant's Intrinsic Evidence (Ex. D)
			<p>U.S. Patent Application Publication No. 2019/0321290 (incorporated into '327 patent by reference at 46:30, 54:1-3)</p> <p>U.S. Patent Application Publication No. 2018/0153847 (incorporated into '327 patent by reference at 8:17-37, 8:37-58, 54:1-3)</p> <p>WIPO Patent Application Publication No. WO/2019/237028 (incorporated into '327 patent by reference at 21:10-15, 54: 1-3)</p> <p>WIPO Patent Application Publication No. WO/2017/192993 (incorporated into '327 patent by reference at 15:5-9, 54:1-3)</p> <p>Sorbera, L. A. et al., "UT-15. Treatment of</p>		

Term	Claims	Plaintiff's Proposed Construction & Explanation ¹	Plaintiff's Intrinsic Evidence (Ex. C)	Defendant's Proposed Construction & Explanation	Defendant's Intrinsic Evidence (Ex. D)
			pulmonary hypertension treatment of peripheral vascular disease," Drug of the Future, 26(4):364-374 (incorporated into '327 patent by reference at 8:1-16, 54:1-3)		
"pulsed inhalation device"	11, 14	<p>"A device that provides non-continuous inhaled drug delivery"</p> <p>UTC understands that Liquidia contends that it does not infringe claims 11 or 14 because Liquidia's dry powder inhaler ("DPI") is allegedly not a "pulsed inhalation device." Construction of this term therefore makes a difference because it impacts Liquidia's infringement of claims 11 and 14.</p>	<p>'327 patent, 5:58-67, 7:11-14, 13:8-17, 15:1-9, 20:44-21:60, 26:35-53, 29: 41-55, 46:23-47:27, 51:50-53:21, 54:5-55:10 (the claims), Fig.11</p> <p>U.S. Patent No. 9,358,240 (incorporated into '327 patent by reference at 8:17-37, 20:48-57, 54:1-3)</p> <p>U.S. Patent No. 9,371,264 (incorporated into '327 patent by reference at 8:37-58, 54:1-3)</p> <p>U.S. Patent No. 9,394,227 (incorporated</p>	<p>"A device that provides the force for non-continuous inhaled drug delivery"</p> <p>The construction of "pulsed inhalation device" relates to non-infringement as Liquidia's device does not provide the force for non-continuous inhaled drug delivery.</p>	<p>20:48-21:5 26:41-44 29:42-44</p> <p>The '327 patent claims</p> <p>U.S. Patent Pub. No. incorporated by reference into the specification of the '327 patent: US 2008/0200449</p> <p>U.S. Patent Nos. incorporated by reference into the specification of the '327 patent: U.S. Patent No. 9,358,240 U.S. Patent No. 9,339,507</p>

Term	Claims	Plaintiff's Proposed Construction & Explanation ¹	Plaintiff's Intrinsic Evidence (Ex. C)	Defendant's Proposed Construction & Explanation	Defendant's Intrinsic Evidence (Ex. D)
			<p>into '327 patent by reference at 8:37-58, 54:1-3)</p> <p>WIPO Patent Application Publication No. WO/2016/010538 (incorporated into '327 patent by reference at 8:17-37, 54:1-3)</p> <p>U.S. Patent Application Publication No. 2019/0321290 (incorporated into '327 patent by reference at 46:30, 54:1-3)</p> <p>WIPO Patent Application Publication No. WO/2019/237028 (incorporated into '327 patent by reference at 21:10-15, 54: 1-3)</p> <p>WIPO Patent Application Publication No. WO/2017/192993 (incorporated into '327</p>		<p>U.S. Patent No. 10,376,525</p> <p>U.S. Patent No. 10,716,793</p> <p>References Disclosed in the File History of the '327 patent:</p> <p>U.S. Patent No. 6,357,671</p> <p>U.S. Patent No. 3,812,854</p> <p>WO 2014/085813A1</p>

Term	Claims	Plaintiff's Proposed Construction & Explanation ¹	Plaintiff's Intrinsic Evidence (Ex. C)	Defendant's Proposed Construction & Explanation	Defendant's Intrinsic Evidence (Ex. D)
			patent by reference at 15:5-9, 54:1-3) King CS, et al. Chest 2020; 158:1651-64 (incorporated into '327 patent by reference at 45:25-26, 54:1-3)		